THEGRIPTHATHOLDS

THE scientific shap-1 ing of the Firestone Non-Skid tread insures that you get all your money out in actual service.

Right-angled against skid in any direction, this massive good-measure tread affords maximum safety as well as multiplied mileage. And only the powerful Firestone body could sustain the bulk and holding strain of the Firestone Non-Skid tread.

All this good-measure building is part of the Universal Service of Firestone Tires for any demand of road or season.

Firestone Tire and Rubber Company

"America's Largest Exclusive Tire and Rim Makers"

Akron, Ohio



to Car Owners Ro'nd Non-Tube Tube

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RAPID ROAD RECORD FOR MAXWELL CAR

Beats Railroad Train From Detroit to Indianapolis.

Wiping the slate clean of all for-mer records in rapid transit by motor par or by train, between Detroit and

The car in which the run was made

minutes. Running time for the round abuse. Much of this running has trip—622 miles—was 19 hours, 47 been over the Detroit-Indianapolis minutes. Between start and finish but 20 hours, 1 minute elapsed.

minutes. Between start and but 20 hours, I minute elapsed.

The Maxwell was checked out of Detroit by W. D. Edenburn, American Automobile Association representative, at 3:11 a. m. It was checked in at the Soldier's Monument ville, O.; Fort Wayne, Huntington, in Indianapolis—311 miles away—at 12:09 p. m. by Jack Baci, automobile editor of the Indianapolis News. Baci checked the car out of Indianapolis at checked the car out of Indianapolis at checked was bettered in virtually events.

took a shot at the schedule of the fast Big Four train which takes a short cut of 298.6 miles between the cities and makes the run in ten hours, 25 minutes. The Maxwell lowered this by one hour 27 minutes. At Indianby one hour, 27 minutes. At Indian-apolis the driver snatched a hurried luncheon and filled the gasoline tank
—his only stop in the whole trip.
Daylight lested halfway through the

mer records in rapid transit by motor par or by train, between Detroit and indianapolis, Ray McNamara in a stock Maxwell touring car has just registered a performance at which, it already been run more than 17,000 is freely predicted, dust eaters of the two cities will shoot for some time of several cars which have been runging under observation of the Maxmenutes; the return trip in 10 hours, 49 minutes. Running time for the round of several cars which have been running under observation of the Maxwell engineering department, to determine the effects of indefinite road abuse. Much of this running has

calling for a south-bound trip in ten checked the car out of Indianapolis at hours, and a return in twelve. This schedule was bettered in virtually evat the finish at 11:12 p. m. The trip started and ended at the Maxwell offices on Woodward avenue.

The first half of the trip was made trip which he passed.

Expert Advice For the Automobile Owner

Queries and Replies Covering Matters of Importance to the Man Who Runs a Car

If there should be a break in the go one cylinder at a time. Bring the ground wire how would the motor act and how could I find the trouble?

If there should be a break in the go one cylinder at a time. Bring the piston to top dead center on the compression stroke, as the valves are then

What will happen when a ground wire breaks depends on the function of and allow it to stand until the carbon the wire. If it carries current when is softened. How long this will take the ignition system is in operation then depends on how hard the carbon is. its breakage will result in the motor coming to a stop, but if the wire is again, it may be necessary to allow it used to short circuit the magneto in order to stop the motor then its breakage will not affect the running of the en-gine. When the switch is brought to the off position the motor will not stop, and therefore some other means will have to be employed to bring the motor

As a rule when this occurs the trouble is easily located. The broken wire is indicated by the stoppage of the motor or its continued operation after the switch has been opened, as the case may be. The broken wire should be easily found by inspection unless, as sometimes happens, the breakage occurs inside the insulation.

What are the disadvantages of a semifloating rear axle?

In the semifleating rear axle the shafts must support the weight of body, frame, etc.; take torsional stresses and turn the rear wheels. The shafts cannot be removed without difficulty and then only when the wheels are removed and the housing jacked

Will you please tell me whether a cylinder should leak compression past the rings when stopped on dead cen-ter? If it should not leak, how do you remedy this?

The rings should be tight enough so that no appreciable loss of pressure will occur for, say, a minute, but it cannot be expected that the pressure will stay there indefinitely when the piston is stopped on dead center. From the way your question is worded it seems that you have turned the motor over until one of the pistons has reached the end of the compression we have misunderstood you and the fact actually is that when you turn the motor over slowly without stopping the pressure decreases then you have a leak. It may not be the fault of the rings, however, but due to the If the trouble is due to leaking rings they must be replaced, and if the pistons and cylinders are very badly worn it may be necessary to bore

out the cylinders and fit larger rings. Before going to the trouble of tearing down the motor and examining the pistons and rings remove the exhaust valve and note whether it is carbonized or pitted. If so it must be ground, Also note whether there is any clearance between the valve stem and the push rod. There should be sufficient space to insert a piece of writing paper, and if there is not the push rod must be adjusted by loosening the lock nut, which is the lower one, and then turning the upper nut to the right. If there is no clearance the valve will be held off its sent and lenkage will occur. If the exhaust valve is found to be in good condition examine the inlet valve,

How is a canvas strip used to pull a

The canvas strip is supplied with cords at either end and is tied to a stake at the front and the rear tied around the tire. When the wheel starts to slip it carries the canvas with it, and the latter is wound upon the tire, the car coming forward at the same

I would like to know what causes a dull knock in my engine running slowly when idle. With both throttles re-tarded, the valves in good shape and the connecting rods tight this knock seems to be in the fore part of the en-

The knock is due to some loose part, which must be found by process of elimination. Probably you will find this knock by examining the main bearings for looseness, the flywheel connection and the crank shaft, which may have become flattened. If the pistons are worn so that they have become loose a knock of this kind may also be given by the slapping of the pistons against the cylinder walls,

In removing carbon from gasoline engines should denatured alcohol be used while engine is hot or cold? How much to each cylinder, and how long should

it remain in cylinders? Apply the alcohol when the motor is hot for the reason that the action of the alcohol is merely to dissolve the gummed on which binds the particles of carbon together into a hard, solid mass, and when the alcohol is bot it dissolves the oil more readily. The cylinder should be filled with alcohol so that it will come into contact with every part of the carbon. It is best to

"Sheer speed had nothing to do with our record, declared McNamara after the trip. "Consistent, steady plugging is what reels off the miles. plugging is what reels off the miles. The car that gets our record will have to be one that can equal the acceleration of the Maxwell—that can jump from ten miles an hour to near its limit in 200 yards. That is the quality that counts in fast road work, just as it does in every-day traffic."

When I run my car at about twenty or twenty-five miles per hour it makes a grinding noise as though there is friction somewhere in the transmission system. Can you tell me the cause?

pression stroke, as the valves are then closed. Fill the cylinder with alcohol

One hour may be sufficient and then,

to stand overnight or possibly twenty-

Improper meshing of the drive shaft

Is a cantilever spring as easy riding as any other kind?

Cantilever springs give easy riding owing to their ability to check the re bound. The elliptic spring as used on many cars gives very easy riding, and it cannot be stated that the cantilever is better than this. Much depends upon the load carried and upon the design of the springs used. The relation between sprung and unsprung weight is a factor for consideration.

If the hub of a wheel is not perfectly centered—that is, if it is one-eighth inch nearer the circumference on one side than on the other-will it unbal-ance the car? How can the hub be

axle shaft. If it is in the front it will in the aforesaid Governor. It is for make steering hard also. The best this fact that we doubt that the Times' plan is to get a new hub or have the motives in attacking the Governor in worn one trued in a lathe. It might every issue and for every little tribe possible to have it bushed. Consult a good repair man, as only an expect and confidence that its atstroke and that you left it there for a be possible to have it bushed. Confew moments at least. If, however, sult a good repair man, as only an examination can tell exactly what should

> Can you give me a good recipe for a top dressing for imitation leather tops? A good recipe for an imitation leather Liberty. top is composed of six parts of sper-maceti, eighteen parts of beeswax, five parts of asphalt varnish, five parts of black vine twig, two parts prussian blue, one part nitrobenzol, one part powdered borax and sixty-six parts oil of turpentine. The wax is melted and the borax added, after which the mixture is stirred until a jellylike mass is obtained. In another pan the spermaceti is melted, the varnish, which has

THE TAMPA TIMES ANIMOSITY.

The Tampa Times is the best edited and one of the most valuable papers in the State of Florida. It is a good paper and fearless, and for that reason is unquestionably the most influential paper in Florida. It does, however, sometimes get on a "hobby" and road. ride it to its own injury. In the minds of the people and its readers mit may be a little biased against the said state officials. In the case of the Governor, however, we fear that the Times is too biased to successfully combat his candidacy. We base our opinion on the fact that the Times has always been kindly disposed to Trammell and at heart is yet. The Times, however, is an unalterable supporter of Steve Sparkman for Congress, and when the Governor announced for Congress against Sparknounced for Congress against Spark-man, he committed less Majesty against the Times and its idol, Spark-man. This act is hardly sufficient for man. This act is hardly sufficient for the Times to turn against the Goverattack him, as it is every man's privi-lege to run for Congress. We freely admit that we would have seen dis-

apparently never forgive the Gover-nor, even though the Governor may have been entirely right in removing the sheriff. He removed him upon the evidence of a grand jury, and sworn statements and an admittance of the sheriff himself. The Governor is unalterably opposed to gambling, and in this position he has our best support and encouragement and from the evidence before him he believed that Spencer was not doing his duty in Tampa to stamp it out. From a personal observation and knowledge of conditions in Tampa we believe the Governor was right. But with the Times it doesn't matter whether the Eccentricity of the hub would cause undue strain on the wheel bearing, in crease tire wear on that side, cause unpleasant riding and perhaps injure the pleasant riding and pe tacks upon some others are viewed It doesn't pay for an influential paper to let its prejudice against a marget the upper hand of such a paper's good judgement and expose it to doubt of good motives.-Jasper Banner of

> been prevacedly mixed with the turpen tine, is added and the mass stirred well and added to the wax mixture in the other vessel. The color is the last ingredient added, this having been pre viously rubbed smooth with a little of the mixture. The material is applied with a brush about once a week in small quantities and is wiped well with a soft cloth to polish after application

THOUGHT FERTILIZERS.

Some folks object to a good roads tax. The American farmer pays great-er taxes to bad roads than he does to the construction and maintenance of good roads. The time and labor lost good roads. The time and labor lost on bad roads will more than pay the tax levy to build and support a good

There are more than 11,000 cooperminds of the people and its readers ative or semi-cooperative organizathere must be some question as to there must be some question as to the United States, according to a speech delivered by Charles J. Brand of the United States Department of Agriculture at the University of its charges it is correct, according to our personal views, which we admit may be a little biased against the worth of products last year. There is room for such organizations in every

> Standardization simplifies market. ing. The consumer likes a product that can be depended on. Compare the ease of marketing wheat and corn with the difficulty of marketing fruit and yegetables. Corn and wheat are standardized.

The average farmer does not realize the part which an efficient kitch-en plays in the profitable conduct of the Times to turn against the Gover-nor and hunt pretexts upon which to which have the water supply more which have the water supply more convenient for the barn than the kitch-

the cause of a noise appearing in the differential when the machine is driven at a speed of twenty or twenty-five them, but we could still treat tween them, but we could still treat tween them, but we could still treat the Governor fairly, and would have the driven shaft pinion and master gear repaired shaft pinion and master gear rep But, to cap the climax, the Governor removed Will Spencer as sheriff
of Hillsboro county. Spencer is the
protege and the political friend of
the Times, and for this the Times can
the Government of Agriculture warns farmers against importture warns farmers against importture warns farmers against importcases like this are common. A good
Federal pure seed law would not only
restrict such importations but it could be made to prevent traffic in impure and misbranded seeds from one state to another. What are you going to do about it, Mr. Farmer?

> Why not take a farm inventory this fall and install a system of farm accounts? You cannot find the leak that takes the profits without some sort of records. The Extension Di-vision of the University of Florida will help you to select a system.

Did you ever think of the relation of the farmer's bank account to the tool shed? Machinery depreciates faster in the weather than it does in use. The time saved by having a rust free implement will soon pay for the shed.

"Blood" in seeds is just as import-ant as it is in breeding animals. Scrub breeding animals produce scrub offspring. You cannot expect to get good crops from seed that have "blood" behind them.

VIRGINIA FARMER

Restored To Health By Vinol

Atlee, Va. — I was weak, run-down, no appetite, my blood was poor, I could not sleep nights and was rapidly losing flesh, but I am a farmer and had to work. Medicines had failed to help me until I took Vinol. After taking three bottles my appetite is fine, I sleep well, my blood is good and I am well again."

—ORLANDO W. BORKEY.

Vinol, our delicious cod liver and iron tonic without oil, is guaranteed to over-come weak, run-down conditions, chronic coughs, colds and bronchitis.

Why Do Business Men Advocate The Florida Citrus Exchange?

It is a significant fact that the business men of every community in Florida, which has a Florida Citrus Exchange packing house, proudly advertise this fact to the world.

There is equal significance in the fact that nurserymen, packing house machinery men and others whose future success depends on the prosperity of the citrus industry, are consistent boosters of the Exchange.

No less is it significant that bankers, land company operators, newspapers and others interested in bringing to Florida men and money for the further development of the State, make a great deal of the Exchange as the key to the future.

These things would not be true, and the keenest business men of Florida today would not be such staunch supporters of the Florida Citrus Exchange, if in their judgment it had failed to do the work for which it was founded.

The degree of success which can be attained by the Exchange in the future working out and execution of plans for the good of the citrus industry in Florida depends upon the measure of support it receives from the growers of the State, and with control of fifty per cent or more of the citrus fruits grown in Florida it can do twice as well for its grower-members as with twenty-five per cent.

Now is the time to add your support to that of your fellow-growers in making bigger and better the Florida Citrus Exchange—the only truly co-operative body now at work for citrus Florida. Put your fruit in the Exchange and sell it yourself-you will have as much voice in the organization as any other member. See the manager of your local association, if there is one in your community, otherwise communicate with this office.

Florida Citrus Exchange, Tampa, Florida

The Florida Metropolis

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